



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,192	06/27/2003	Gyu-Hwa Hwang	Q75716	5792

23373 7590 08/11/2006

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

YENKE, BRIAN P

ART UNIT PAPER NUMBER

2622

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/607,192

Applicant(s)

HWANG ET AL.

Examiner

BRIAN P. YENKE

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment (02 Jun 06).
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-10 and 12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3, 5-10 and 12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 02 June 06 have been fully considered but they are not persuasive.

Applicant's Arguments

a) Regarding claims 1 and 8, applicant states that Ryu fails to teach or suggest the mixing step claimed, rather Ryu only discloses the respective horizontal/vertical corrected data are interpolated, there is no further mixing of the signals.

b) Regarding claims 5 and 7, the applicant traversed the examiner's OFFICIAL NOTICE regarding the use of a filter that filters noise.

c) Regarding claim 6, the applicant traversed the examiner's OFFICIAL NOTICE regarding the use of an amplifier in amplifying a signal.

Examiner's Response

a) The examiner disagrees. The applicant it is noted interpolates the correction data for the horizontal sync signal, and also calculates the correction data for the vertical sync signal and then combines/mixes the interpolated values for both the horizontal/vertical data. Ryu discloses interpolating both the horizontal and vertical data—thus the data is interpolated with respect to both the horizontal and vertical data and is already combined/mixed. The applicant separates the calculation first for the horizontal then the vertical, then combines the two interpolated values. Therefore, since Ryu performs the exact computation, whereby the interpolated values are the combination of the horizontal and vertical components, thereby meeting the claimed limitation.

b) The examiner incorporates Binsted US 6,554,431, which discloses an analogous projection system which uses a filter to remove noise (col 5, line 53-56), providing the intended purpose of removing noise from the signal and hence providing an enhanced signal for display.

c) The examiner incorporates Delsignore et al., US 4,630,100, which discloses an analogous projection system which uses an amplifier, immediately prior to display (CRT) in order to provide an amplified signal for display (Fig 1, element 17).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8-10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Ryu, US 5,497,054.

In considering claims 8 and 12,

a) the claimed memory... is met by correction memory 60 (Fig 6) and main memory 50

b) the claimed controller... is met by system controller 40 and memory controller 30

c) the claimed RGB focusing... is met by memory 60, 50, controllers 40 and 30, where the interpolated/calculated focusing correction data for the RGB tubes is stored in memory 60 which will be applied to a convergence yoke (claimed coils), not shown in Figure (col 6, line 58-62).

Ryu discloses outputting a parabolic interpolated/calculated focusing correction current based upon the combination of the seed focusing correction data and the horizontal/vertical tracking patterns (meeting the mixed limitation).

In considering claim 9,

Ryu discloses that the correction data stored in memory (col 6, line 47-57) is the interpolated corrected seed data.

In considering claim 10,

Ryu discloses that the correction data is correlated (i.e. sync'd) with the horizontal and vertical tracking patterns (col 2, line 4-10).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-7 are rejected under 35 U.S.C. 103(a) as being obvious over Ryu, US 5,497,054.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C.

102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

In considering claims 1 and 6,

- a) the claimed memory...* is met by correction memory 60 (Fig 6) and main memory 50
- b) the claimed controller...* is met by system controller 40 and memory controller 30
- c) the claimed RGB focusing...* is met by memory 60, 50, controllers 40 and 30, where the interpolated/calculated focusing correction data for the RGB tubes is stored in memory 60 which will be applied to a convergence yoke (claimed coils), not shown in Figure (col 6, line 58-62).

Ryu discloses the claimed calculation/interpolation as stated above, as well as a D/A converter 80 (Fig 6).

However, Ryu does not explicitly recite the use of an amplifier being used after the D/A conversion. Although the concept of amplifying a signal is notoriously well known in the art in order adequately provide a signal being processed, the examiner nonetheless takes “OFFICIAL

NOTICE” regarding as such, thus it would have been clearly obvious to implement an amplifier in Ryu before applying the correction signal for the advantages as noted above.

In considering claim 2,

Ryu discloses that the correction data stored in memory (col 6, line 47-57) is the interpolated corrected seed data.

In considering claim 3,

Ryu discloses that the correction data is correlated (i.e. sync’d) with the horizontal and vertical tracking patterns (col 2, line 4-10).

In considering claims 5 and 7,

As stated Ryu does disclose performing an interpolation calculation and the mixing (i.e. combining) of the horizontal/vertical tracking patterns as well as the correction data in order to provide the correction parabola waveform to the convergence yoke for each color.

However, Ryu does not explicitly recite the use of filters in filtering noise from the correction data. The use of a filters are notoriously well known since they provide a system an enhanced/ideally noise free since they were filtered. Thus the inclusion of such device is conventional/optional based upon the threshold level/acceptability of noise within a system, and thus the examiner takes “OFFICIAL NOTICE” regarding their use, since it would have been clearly obvious to modify Ryu by removing any noise in the system if present.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (571)272-7359. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, David L. Ometz, can be reached at (571)272-7593.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571)-273-8300

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is

(703)305-HELP.

General information about patents, trademarks, products and services offered by the United States Patent and Trademark Office (USPTO), and other related information is available by contacting the USPTO's General Information Services Division at:

800-PTO-9199 or 703-308-HELP

(FAX) 703-305-7786

(TDD) 703-305-7785

An automated message system is available 7 days a week, 24 hours a day providing informational responses to frequently asked questions and the ability to order certain documents. Customer service representatives are available to answer questions, send materials or connect customers with other offices of the USPTO from 8:30 a.m. - 8:00p.m. EST/EDT, Monday-Friday excluding federal holidays.

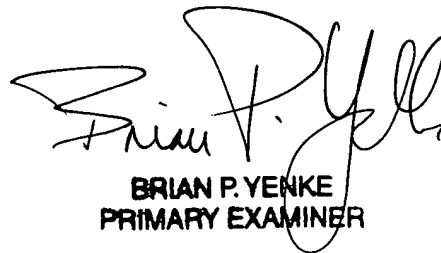
For other technical patent information needs, the Patent Assistance Center can be reached through customer service representatives at the above numbers, Monday through Friday (except federal holidays) from 8:30 a.m. to 5:00 p.m. EST/EDT.

The Patent Electronic Business Center (EBC) allows USPTO customers to retrieve data, check the status of pending actions, and submit information and applications. The tools currently available in the Patent EBC are Patent Application Information Retrieval (PAIR) and the Electronic Filing System (EFS).

PAIR (<http://pair.uspto.gov>) provides customers direct secure access to their own patent application status information, as well as to general patent information publicly available. EFS allows customers to electronically file patent application documents securely via the Internet. EFS is a system for submitting new utility patent applications and pre-grant publication submissions in electronic publication-ready form. EFS includes software to help customers prepare submissions in extensible Markup Language (XML) format and to assemble the various parts of the application as an electronic submission package. EFS also allows the submission of Computer Readable Format (CRF) sequence listings for pending biotechnology patent applications, which were filed in paper form.



B.P.Y
08 August 2006



BRIAN P. YENKE
PRIMARY EXAMINER